

ABSTRACT OF THE DISCLOSURE

A method and an apparatus for performing cascade control of processing of semiconductor wafers. A first semiconductor wafer for processing is received. A second semiconductor wafer for processing is received. A cascade processing operation upon the first and the second semiconductor wafers is performed, wherein the cascade processing operation comprises acquiring pre-process metrology data related to the second semiconductor wafer during at least a portion of a time period wherein the first semiconductor wafer is being processed.